

CLAIMS

1. An angular velocity measuring device comprising: a first sensor for generating a detected output of an angular velocity; a second sensor for generating a
5 detected output of an angular velocity with lower drift of the detected output than in the first sensor; a high-frequency pass filter for being inputted the detected output of the first sensor and outputting higher frequency components than a predetermined frequency in the detected
10 output; storage means for sequentially storing output values of the high-frequency pass filter; subtraction means for sequentially performing operations of subtracting an output value at a time a predetermined time period earlier, which is stored in the storage means, from
15 the output value of the high-frequency pass filter; and addition means for sequentially performing operations of adding a value obtained by the subtraction means to the output value of the second sensor, wherein a value obtained by the addition means is obtained as an angular
20 velocity measurement.

2. The angular velocity measuring device according to claim 1, wherein the first sensor has an output characteristic of a shorter delay in response of the detected output to a change in the angular velocity than
25 in the second sensor and the predetermined time period is set to a time period according to a difference between a delay in response of the first sensor and a delay in

response of the second sensor.

3. The angular velocity measuring device according to claim 1, wherein the first sensor is a vibratory gyroscope and the second sensor is a gas rate gyroscope.

5 4. A leg-moving robot comprising:

two legs extending from an upper body;

an angular velocity measuring device, which includes: a first sensor for generating a detected output of an angular velocity; a second sensor for generating a detected output of an angular velocity with lower drift of
10 the detected output than in the first sensor; a high-frequency pass filter for receiving an input of the detected output of the first sensor and outputting higher frequency components than a predetermined frequency in the detected output; storage means for sequentially storing
15 output values of the high-frequency pass filter; subtraction means for sequentially performing operations of subtracting an output value at a time a predetermined time period earlier, which is stored in the storage means, from the output value of the high-frequency pass filter;
20 and addition means for sequentially performing operations of adding a value obtained by the subtraction means to the output value of the second sensor, wherein a value obtained by the addition means is obtained as an angular
25 velocity measurement;

posture angle estimation means for estimating a posture angle of a predetermined portion at least on the

basis of the angular velocity measurement obtained by the angular velocity measuring device; and

control means for generating a joint drive command signal of the robot at least on the basis of the posture angle estimated by the posture angle estimation means,

wherein a joint actuator for driving the joint of the robot is activated according to the joint drive command signal.

5. The leg-moving robot according to claim 4, further comprising an acceleration sensor for measuring accelerations including a gravitational acceleration acting on the robot, wherein the posture angle estimation means estimates the posture angle of the predetermined portion on the basis of the angular velocity measurement obtained by the angular velocity measuring device and the acceleration measurement obtained by the acceleration sensor.